

Today's talk focuses on 2 instances not well handled by M-for-M 1:

→ **Problem 1. Superiority (Bulgarian-style)**: (exs from Rudin 1998, Bošković 1998, Grewendorf 2001)

5) a. **Koj kogo** e vidjal? SUBJ_{wh} > OBJ_{wh} (Bulgarian)
 who whom aux seen
 “Who saw whom?”

b. ***Kogo koj** e vidjal? *OBJ_{wh} > SUBJ_{wh} **Superiority**
 whom who_{NOM} aux seen
 *“Whom did who see?”

“the surface order of Bulgarian ... wh-phrases ... appears to reflect their relative order prior to wh- movement” (Krapova & Cinque 2005: 190)

6) a. **Koj kakvo** ti e kazal? [WH-1, WH-2, WH-3] > clitics
 who what you aux told
 “Who told you what?”

b. ***Koj** ti e **kakvo** kazal? *[WH-1] > clitics > [WH-2, WH-3]
 who you aux what told
 “Who told you what?”

- Assumption 0: BG WHs have a property that *requires* them to move (needed for all analyses)

7) **Standard analyses** of Bulgarian (BG) Superiority (Rudin 1988, Richards 1997, Bošković 2002)

→ STEP 1: The higher WH₁ is attracted to SpecCP by strong [wh] on C⁰ (=Attract Closest)

- Assumptions 1-2: BG has a “special” kind of C_{wh}: (“The Probe that Keeps on Probing”)
 - (i) it allows multiple specifiers (OK) and
 - (ii) it allows non-deletion of its uninterpretable feature (to attract more WH_s) (not so OK)

→ STEP 2: Next, C⁰ enters into an Agree relation with the lower WH₂.

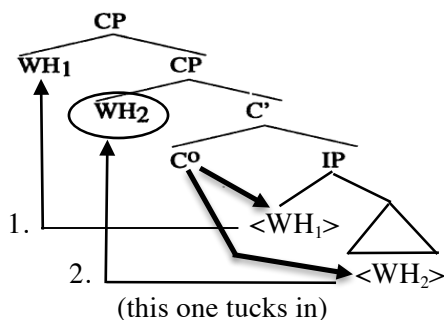
- Assumption 3: There is “Tucking-In” (movement to a lower Specifier)

→ STEP 3: WH₂ “tucks in” to a lower SpecCP than WH₁

- Assumption 4: Tucked-in elements, in lower Specs, *are not equidistant*. Shortest Move thus requires movement to this “closer” Specifier for WH₂

→ STEP 4: Underlying order WH₁ > WH₂ is preserved

8) Schematic picture of BG Superiority obeying derivations such as (5)a)



[box 3]

(9) **some problems with the standard analysis:** (Bailyn 2017)

[box 4]

A. Tucking-In is counter-cyclic (violates the Extension Condition)

10) **The Extension Condition** (loosely): *All movements must target the top of the tree*

B. The account needs The Probe-that-Keeps-on-Probing

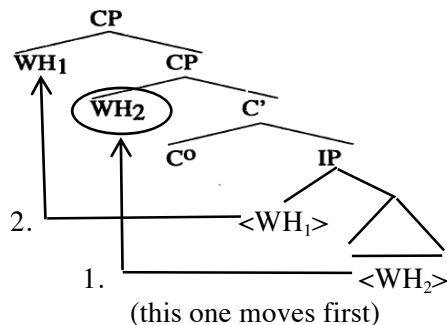
C. Parametrization is required in three (related) aspects:

- (i) in the lexicon (Bulgarian WH elements differ from English equivalents in having to move) ✓
- (ii) in the ability/need to have multiple specifiers (BG) vs. a single specifier (Eng) *
- (iii) in the nature of the [wh] features of C (it must be a multiple rather than single attractor) *

• Is there any way to avoid the Shortest Move/ Tucking-In approach? Maybe there is...

→ WH₂ moves first! ←

11) Schematic picture of BG Superiority if WH-2 moved first (no Tucking-In!)



• However, (11) is impossible in standard systems with **M-for-M 1**. Why? Closest attract! ☹

→ **M-for-M 2: “Self-Marking Movement”**

12) **BG-Superiority** results when Move is forced by a feature **on the goal(s)**

[box 5]

→ WH elements with a **Blinking Blue Light** undergo “Self-marking Movement” ←

13) **Self-marking movement:** (Bailyn 2017, see also Bošković 2007)

[_{XP} ... X ... Y]
iF [← the Blinking Blue Light]

→ Problem: How do Self-motivators move if their friendly Probe is not yet in the tree?

→ Answer (here): (immediate) Sideways Movement!

14) Sideways Movement (Nunes 2001, 2004)

[box 6]

• (sub)trees are built in parallel in the “workspace”

• Sideways movement allows an element in a partially built structure to dis-attach and move “sideways” into a distinct subtree. The theory allows this freely, subject to linearization

Assumptions for **M-for-M 2** (all independently needed)

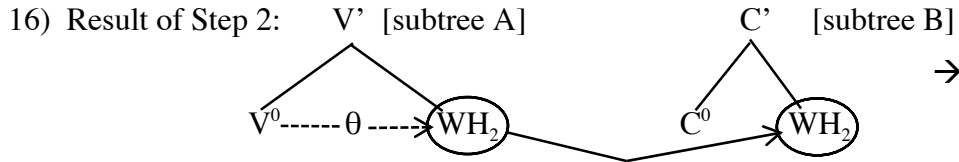
(i) Sideways Movement is possible (Nunes 2001, 2004; see also Heck 2016)

(ii) Cyclicity holds (all attachment is to the top of the tree)

(iv) Specifiers precede complements (2nd merged element precedes 1st merged element)

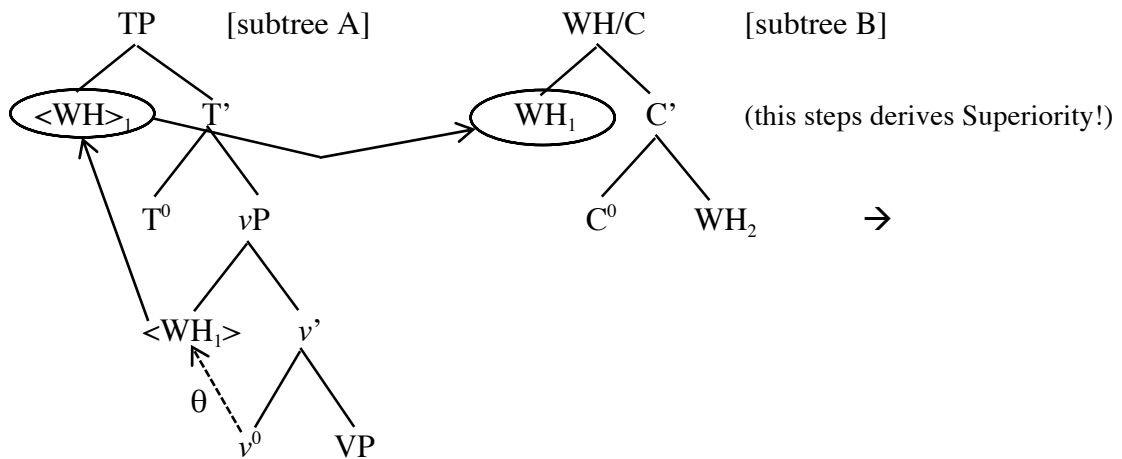
15) Derivation of Bulgarian WH₁ > WH₂ structure:

- STEP 1: WH₂ is merged in base position in the usual way (gets case/theta etc in Subtree A)
- STEP 2: WH₂ has a Blinking Blue Light ([uF]). This forces it to move sideways and join with C⁰ [wh] (already in the Numeration/Workspace), creating Subtree B:



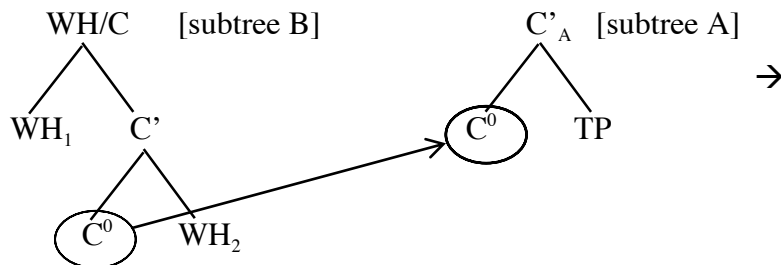
- STEP 3: WH₁ is merged into its position in the usual way. It gets case/theta etc
- STEP 4: WH₁ has [uF] (the Blinking Blue Light). This forces it to move sideways, merging with the existing WH/C cluster

17) Result of Step 4:



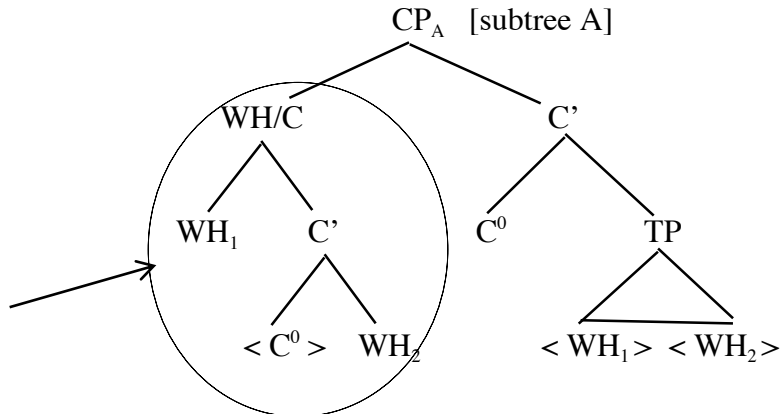
- STEP 5: C still must merge with TP. A copy of C is merged with TP in subtree A: (an instance of Sideways movement)

18) Result of Step 5:



STEP 6: The remaining structure now merges into SpecCP in subtree A:

19) Result of Step 6:



20) Summary of **M-for-M 2**

- a. Self-marking movements (such as multiple movements to a single head) are driven by a (strong) feature [*uF*] of the moved element itself. (its Blinking Blue Light)
- c. Derivations are entirely bottom up. Self-motivated movement begins *before* the checking head (Probe) is merged (=Bošković (2007)'s "early" movement)
- d. Sideways movement always takes places with **M-for-M 2**

21) **Advantages of this account:**

[box 7]

- a. We can derive Bulgarian Superiority in a principled fashion without Tucking-In
 - b. Even in Bulgarian, C_{wh} has only one specifier (Rudin 1988, Grewendorf 2001)
 - c. We can dispense with multiply active Probes
 - d. Parameterization reduces to the one lexical difference (here the Blinking Blue Light).
3. There is only one relevant Economy Principle (Attract Closest)

Instances of Self-Motivated Movement:

[box 8]

- 22)
- a. Multiple overt WH-movement
 - b. Object Shift (if definiteness driven)
 - c. $V^0 \rightarrow T^0$
 - d. other instances of head movement (all?)
 - e. Quantifier Raising?

Interim Conclusions

[box 9]

- There are two kinds of Superiority: (Eng and BG-Superiority) with different sources
 - Eng Superiority follows from **M-for-M 1**
 - BG Superiority follows from **M-for-M 2**
- Tucking-In can be removed from the grammar (yay!)
- We have a general theory of multiple movement as Self-motivated, requiring immediate satisfaction and hence Sideways Movement (this piece, but only this one, follows Bošković 2007)

→ **Problem 2. Asymmetries in blocking effects**

Observation: Scrambling is subject to most constraints, but is not subject to WH Islands

Marking for Movement

-6-

• The Adjunct Condition (“Constraint on Extraction Domains”):

- 23) a. ***Kogo** ty ušel domoj, [potomu što Maša ljubit ___]? (*wh)
 who_{ACC} you left to.home [--- because--- Masha loves ___]
 *‘‘Who did you go home because Masha loves?’’
- b. ***Borisa** ja ušel domoj, [potomu što Maša ljubit ___] (*Scr)
 Boris_{ACC} I left to.home [---because --- Masha loves ___]
 *‘‘Boris I went home because Masha loves?’’

• The Complex NP Constraint:

- 24) a. ***Kogo** ty pozvonil [agentu [kotoryj ljubit ___]]? (*wh)
 Whom_{ACC} you phone [spy_{DAT} [who loves ___]]
 *‘‘Who did you phone a spy who loves?’’
- b. ***Borisa** ty pozvonil [agentu [kotoryj ljubit ___]]. (*Scr)
 Boris_{ACC} you phone [spy_{DAT} [who loves ___]]
 ‘‘Boris you phoned a spy who loves’’

• WH Islands:

- 25) a. ***Kto** ty videl [kogda [___ pod’ezžal]]? (*wh)
 Who_{NOM} you saw when [___ came]]
 ‘‘Who did you see when (he) was arriving?’’ (ex from Müller & Sternefeld 1993)
- b. Ty **doktor** videl [kogda [___ pod’ezžal]]? (√ Scr)
 you doctor_{NOM} saw [when [___ was arriving]]
 ‘‘Did you see when the doctor was arriving?’’
 (ex from Müller & Sternefeld 1993, citing Zemskaya 1973 via Yadroff 1992)
- (26) a. Ty **musor** slyšala, [kogda uvozili ___]? (√ Scr)
 You trash_{ACC} heard [when took away ___]
 ‘‘Did you hear them taking the trash away?’’ (Zemskaya 1973: 399)
- b. Ty **doktor** videl, [kogda ___ pod’ezžal]? (√ Scr)
 you doctor_{NOM} saw [when ___ was arriving]
 ‘‘Did you see the doctor arriving?’’ (Zemskaya 1973: 399)
- (27) a. *Ty **čto** slyšala, [kogda uvozili ___]? (*wh)
 You what_{ACC} heard [when took away ___]
 *‘‘What did you hear them taking away?’’
- b. *Ty **kto** videl, [kogda ___ pod’ezžal]? (*wh)
 you who_{NOM} saw [when ___ was arriving]
 *‘‘Who you see when arrived?’’

28) Parallel and non-parallel behavior of WH-movement and Scrambling:

	--wh-movement--			--Scrambling--		
	<u>wh-subj</u>	<u>wh-obj</u>	<u>wh-adjunct</u>	<u>subject</u>	<u>object</u>	<u>adjunct</u>
a. Adjunct cond	*	*	*	*	*	*
b. Complex NPC	*	*	*	*	*	*
c. Coord Str. Constr	*	*	*	*	*	*
c. <i>kak</i> -clauses	*	??	*	√	√	√
d. real wh-islands	*	??	*	√	√	√

29) Relativized Minimality (Rizzi 1990): *A' elements block A'-movement*

30) Classes of features (Rizzi 2004, Bailyn 2018)

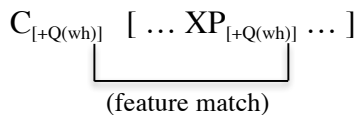
- i. Argumental: (only relevant for A-movement)
- ii. [+Q] Quantificational: Wh, Neg, measure, Focus . . .
- iii. [-Q] Non-quantificational:
 - a. [+Mod] Modifiers: evaluative, epistemic, Neg, frequentative, measure, manner, . . .
 - b. [+Top] Topic
 - c. [+Σ] Scrambling (Kawamura 2004)

31) Relativized Relativized Minimality (Rizzi 2004, Bailyn 2018):

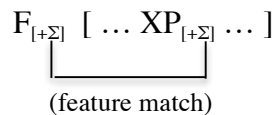
[+Q] elements block [+Q] elements; [-Q] elements do not block [+Q] elements

32) Derivation of simple A'-relations:

a. wh-movement:

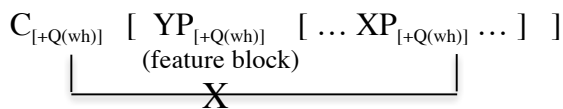


b. A'-scrambling:

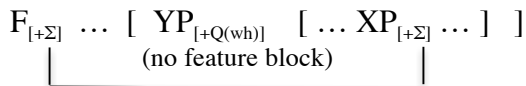


33) Relativized Minimality effects (eg wh-islands):

a. wh-island:



b. Scrambling out of wh-island:



(34) a. Ty **musor**_[+Σ] slyšala, [**kogda**_[+wh] uvozili ____]? (√[-Q] Scr over [+WH])
 You trash_{ACC} heard [when took away ____]
 “Did you hear them taking the trash away?” (Zemskaya 1973: 399)

b. Ty **doktor**_[+Σ] videl, [**kogda**_[+wh] ____ pod'ezžal]? (√[-Q] Scr over [+WH])
 you doctor_{NOM} saw [when ____ was arriving]
 “Did you see the doctor arriving?” (Zemskaya 1973: 399)

→ **Crucial prediction:** Scrambling of a [+Q] element out of a wh-island should fail?

(35) a. Ty **vsex**_{[+Q], [+Σ]} slyšala, [**kogda**_[+wh] uvozili ____]? (√[+Q] Scr over [+WH])
 You everyone_{ACC} heard [when took away ____]
 “Did you hear them taking everyone away?”

b. Ty [**každyj doktor**]_{[+Q], [+Σ]} videl, [**kogda**_[+wh] ____ pod'ezžal]?
 you [every doctor<sub>NOM}] saw [when ____ was arriving]
 “Did you see every doctor arriving?” (√[+Q] Scr over [+WH])</sub>

But it's fine!

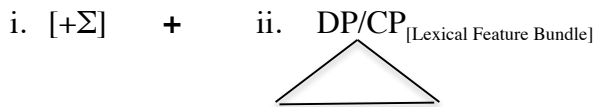
We have achieved a paradox: we need feature classes to account for the scrambling facts, but this leads us to expect quantifiers can't scramble out of WH islands. But they can.

→ We need **M-for-M 3: Marking for Scrambling**

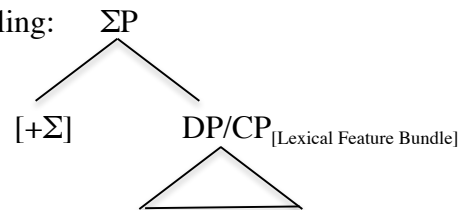
36) **M-for M 3: Marking for Scrambling:** [box 10]

- Step 1. Some kind of syntactic object is built (e.g. DP)
- Step 2. The [+Σ] head is merged with the DP, creating a new syntactic object (ΣP)
- The resulting ΣP behaves as a [-Q] object, escaping wh-islands, etc.

37) a. The syntactic objects just before Marking for Scrambling: (Bailyn 2018)



b. The syntactic object after Marking for Scrambling:



38) ??Ja **bystro**_[+Σ] **xoču**, [čtoby ona **často**_[+Mod] ___ **exala**] .
 I quickly want [that she often ___ went]
 “I want it to often go quickly.” (ex from Shields 2005, my diacritics)

39) Summary of blocking data: (Bailyn 2018) [box 11]

kind of mvt	----- potential blocker -----				----- [-Q] blockers -----	
	----- [+Q] blockers -----				[+Mod]	[+Σ]
	[+WH]	[+Foc]	[+Quant]	[+Neg]		
wh-movement	*	*	*	*	✓	✓
Focus movement	*	*	*	*	✓	✓
Scrambling	✓	✓	✓	✓	??	✓
Relativization	✓	✓	✓	✓	✓	✓

Prediction: M-for-M 2 and M-for-M 3 should be incompatible. Overt wh-movement languages should not allow wh-scrambling or wh-topicalization. = ✓ for Slavic, Germanic etc

Conclusions [box 12]

- There are 3 ways elements can become marked for movement:
 - M-for-M 1:** probing from above (with feature checking of inherent feature)
 - M-for-M 2:** lexical marking (leads to self-motivated movement)
 - M-for-M 3:** syntactic marking for movement (in the course of the derivation)
- There are 2 very different kind of movement constraints (absolute and relativized)

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Appendix: Superiority is not parameterized!

- There's another kind of Slavic multiple WH-mvt language, apparently without Superiority

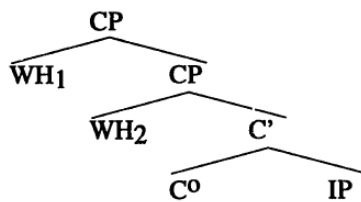
40) a. Ko koga vidi? b. Koga ko vidi? (SC)
 who_{NOM} whom_{ACC} sees whom_{ACC} who_{NOM} sees
 'Who sees whom?' 'Whom does who see?'

- Languages like SC/Russian (Rudin 1988's [-MFS] languages) share other properties:

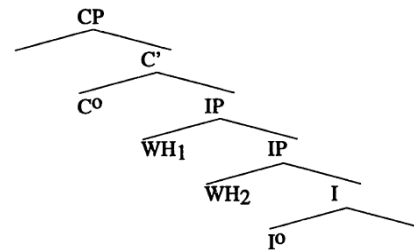
41) a. +MFS languages: Bulgarian / Romanian	b. -MFS languages: SC/Polish/Russian
i. Parentheticals/ clitics come after all WHs	i. Parentheticals/ clitics come after 1 st WH
ii. multiple WH extraction possible	ii. multiple WH extraction not possible
iii. Superiority holds	iii. Superiority doesn't hold [box 13]

42) Richards' (1997) WH movement types:

a. "CP-absorption" (Bulgarian, Chinese)



b. "IP-absorption" (Serbo-Croatian, Japanese)



Puzzle: WHY do -MFS languages (apparently) not show Superiority effects?

43) Accounts of SC/Russian apparent lack of Superiority in (40):

- (GB): The workings of the ECP conspire to allow (40) (Rudin 1988)
- Superiority is parameterized (Stepanov & Stateva 2009)
- Single WH-mvt happens first, followed *later* by lower adjunction to IP (Bošković 1997)
 ("I leave it open here how this should be reconciled with the cycle" Bošković 1997, p. 12)
- "IP absorption" is not subject to Superiority but "CP absorption" is (Richards 1997)
- Superiority does not apply because the inherent [Foc] movement requirement of [wh] forces the movement, so each element is driven separately** (so no competition):
 "Attract/Shortest is simply irrelevant... Each *wh*-phrase in a multiple *wh*-question moves for an independent reason [Focus]" (Stepanov & Stateva 2009, following Stepanov 1998)

→ Problem: but why should multiple movement to Focus not violate superiority?

Answer: It does!

44) **Accounting for apparent lack of Superiority in Rus/SC type languages:** (cf Scott 2012)

- SC/Russian/Polish have a Blinking **Purple** Light (= the TP-level Focus feature)
- The Blinking **Purple** Light also triggers Sideways Movement, deriving (local) Superiority
- Superiority is NOT parameterized
- Single, Eng-style WH-movement then occurs, pulling up *any* one of the clustered WHs
- *Apparent* lack of Superiority follows from ability to move *any* WH to a higher position

→ If this is the right story, then Shortest Move accounts of Tucking-In cannot be correct, since multiple WHs (in Foc or CP) are *equidistant*, undermining the Tucking-In account

- On the TP level, Superiority holds in these languages, and its effect can be uncovered (Scott’s 2012 “Emergence of Superiority”)

Emergence of Superiority in SC: (Bošković 1997, 2002, Stjepanović 1999)

[box 14]

- subordinate clauses:

45) a. Jovan i Marko ne znaju **ko** je **koga** istukao.
 Jovan and Marko not know who is whom beaten
 ‘Jovan and Marko do not know who beat whom.’

b. *Jovan i Marko ne znaju **koga** je **ko** istukao.
 Jovan and Marko not know who is whom beaten
 *‘Jovan and Marko do not know whom who beat.’

- overt topics:

46) a. Tom čoveku, **ko** je **šta** poklonio?
 that man who is what bestowed

b. ??Tom čoveku, **šta** je **ko** poklonio?
 that man what is who bestowed

- see Scott 2012 for Russian Emergence of Superiority